

Report

Harpers Ferry National Historical Park

■ 1.0 Site Description

Harpers Ferry National Historical Park (NHP) is located at the confluence of the Shenandoah and Potomac Rivers at the junction of the States of Maryland, Virginia, and West Virginia (see Figure 1). The geographic and strategic importance of this location at one of the few natural gaps in the Allegheny Mountain chain has been recognized for well over 200 years. Thus, as noted in the Park’s brochure:

Figure 1. Park Visitor Center Entrance Sign



“The history of Harper’s Ferry has few parallels in the American drama. It is more that one event, one date, or one individual. It is multi-layered, involving a diverse number of people and events, decisions and actions that influenced the course of our nation’s history. Harpers Ferry witnessed the first successful application of interchangeable parts, the arrival of the first successful American

railroad, John Brown’s attack on slavery, the largest surrender of Federal troops during the Civil War, and the education of former slaves in one of the earliest integrated schools in the United States.”

Harpers Ferry became part of the NPS in 1944. It encompasses an area of over 2,300 acres in Jefferson County, West Virginia; Washington County, Maryland; and Loudoun County, Virginia. The Park is approximately 65 miles northwest of Washington, DC, 20 miles southwest of Frederick, Maryland, and six miles northeast of Charles Town, West Virginia. The Park boundaries totally encompass the communities of Harpers Ferry and Bolivar, West Virginia.

Harpers Ferry NHP consists of a number of individual sites. These include the 1990 vintage visitor center and an associated 900 space parking area, a collection of late 18th and early 19th century buildings in the “Lower Town,” and several Civil War fortifications and campgrounds at various locations in nearby Maryland, Virginia, and West Virginia. The “Lower Town” area of the Town of Harpers Ferry blends directly into an active residential and commercial district, also comprised primarily of 18th and 19th century structures (see Figure 2). The Appalachian Trail also passes through the Park.

The presence of the Shenandoah and Potomac Rivers and the steep slopes leading away from the river banks constraint vehicular access and circulation to the Park’s core areas. Indeed, these access and parking constraints were the primary factors that led to the creation in 1980 of a park development concept removing private automobiles from the Lower Town area to the new visitor center/satellite parking complex and the initiation of a comprehensive shuttle bus system.

Harpers Ferry NHP is open to the public daily throughout the year. The Visitor Center hours are 8:00 a.m. to 6:00 p.m. during the summer months and 8:00 a.m. to 5:00 p.m. the remainder of the year. The Visitor Center is closed on Christmas Day. Harpers Ferry is an NPS fee demonstration park, with a three-day duration entrance pass costing \$5.00 per vehicle or \$3.00 per person (cyclists and walk-ins.).

Current NPS visitation statistics indicated approximately 371,000 persons per year (1998). However, this only represents persons who are recorded at the Visitor Center. Since the Lower Town area is open to access by the general public from the surrounding public street system, it is estimated by the NPS staff that the total actual visitation could be as much as 50 percent higher than this “official” estimate. The highest visitation periods are during the summer months of June, July, and August, and during the fall foliage season in October. The NPS staff noted that increasing visitation levels have been observed in recent years in the spring and fall months.

Figure 2. High Street in Harpers Ferry



■ 2.0 Existing ATS

The Park operates a fixed route shuttle bus service between the main visitor center and the Lower Town area. This service operates on a dedicated public roadway constructed to link the visitor center parking area with the Lower Town area. Off-street bus shelter and waiting areas are provided at both the main visitor center and the Lower Town route terminus points (see Figures 3 and 4). The shuttle service has been in continuous operation since June 1990 using a fleet of six 40-foot Flexible Industry urban transit buses. These are standard urban transit buses with diesel engines that have proven to be extremely reliable. Since its initiation, it is estimated that over one million miles of service has been operated.

It is estimated that approximately five million persons have used the shuttle bus service since its initiation. Based upon past visitor surveys, there appears to be a high level of public support and satisfaction with this shuttle service. Very few complaints have been received in the nearly 10 years of operation. The shuttle service operates non-stop between the Visitor Center and Lower Town terminals and takes approximately four minutes for a one-way trip.

Figure 3. Existing Harpers Ferry Shuttle Bus Vehicles



On a typical day, three to four buses are in continuous operation, with service headways in the range of eight to 10 minutes. During peak visitation periods, all six buses in the current fleet are in operation, with the intervals between buses dropping to three to four minutes. All vehicles are radio-equipped, with additional buses dispatched to accommodate unexpectedly high demands. At the present time, none of the Park's shuttle bus vehicles are ADA-accessible. A separate lift-equipped van is used to transport disabled visitors from the visitor center to the Lower Town area.

Harpers Ferry NHP is recognized as one of the pioneers in the operation of Alternative Transportation Systems (ATS) in a park setting. As a result, a number of test vehicles have been brought to the Park from time to time for testing and evaluation in an operational setting. These tests have included both alternative fuel (natural gas) and electric vehicles. The steep grade connecting the Lower Town area with the visitor center has typically proven to create problems for loaded electric vehicles.

The operation of the NPS shuttle bus system at Harpers Ferry is somewhat unique. While the vehicles themselves and the maintenance facility are owned by the NPS, day-to-day operations and maintenance is provided under a contract to the NPS by the Eastern Panhandle Transportation Authority (EPT), a public transit operator serving Jefferson County, West Virginia. EPT staff have operated the Harpers Ferry shuttle bus service since its initiation in 1990. The NPS staff reported that this arrangement has achieved excellent results, in terms of both operations and maintenance. Somewhat surprisingly, the NPS staff commented that there has been little formal documentation of the success of

the Harpers Ferry shuttle bus system, which they viewed as being an excellent example for application at other NPS sites around the country.

Figure 4. Lower Town Shuttle Bus Terminal



A significant percentage of Park visitors, particularly during the fall months, arrive via tour buses. The NPS staff has established good relationships with the tour bus operators in the region. Tour operators generally deliver their tour groups to the NPS visitor center where passengers obtain a basic orientation before boarding the Park shuttle bus for the short trip to the Lower Town area. To the degree possible, pre-scheduling of bus arrivals is encouraged to ensure that an adequate number of Park shuttle buses are provided. Similar operations are followed for local student groups arriving by school bus.

At the same time, the open nature of the Lower Town street system does not prevent tour buses from bringing passengers directly into this area. When this occurs, the buses tend to block other vehicle movements on the narrow streets and encounter difficulties in finding adequate parking facilities (see Figure 5).

Harpers Ferry NHP is also served by both Amtrak intercity and State of Maryland operated commuter railroad service. The railroad station is located immediately adjacent to the Lower Town area of the Park. A 40- to 50-space parking area services commuters to Washington, DC.

Figure 5. Tour Bus-Related Congestion in Lower Town Area

■ 3.0 ATS Needs

The current shuttle bus operating contract is scheduled to be readvertised in 2000. At that time, all of the vehicles in the current bus fleet will be 11 years old. Although the vehicles have been very reliable to date, an increased level of maintenance has been required to keep them in operation on a regular basis. In addition, several major maintenance items (engines, transmissions, etc.) are beginning to be required. A direct one for one replacement of the current fleet with standard 40-foot urban transit buses would cost on the order of \$300,000 to \$350,000 per vehicle. The cost to replace the current six vehicle fleet would thus be on the order of \$1.8 to \$2.1 million.

As visitation has increased over time, the capacity of the current 900-space visitor parking area (expandable to approximately 1,000 spaces by allowing parking on adjacent grass areas) has been exceeded on a more common basis. The Park is currently considering the acquisition of an additional 800 acres of land to include a major Civil War site. If this is accomplished, there will be a need for both additional visitor parking and the acquisition of two to three more shuttle bus vehicles. These additional vehicles would be used to link the expanded parking area with the new historic site.

Another potential ATS need would involve the provision of a shuttle bus connection from the Park to a proposed \$135 million commercial and historic area development in Shepherdstown, West Virginia.

■ 4.0 Basis of ATS Needs

The primary rationale that supports continued ATS investment at Harpers Ferry is the demonstrated success of the current shuttle bus system in providing both improved visitor transportation management and resource conservation. Prior to the initiation of the shuttle bus service, the Lower Town area was heavily congested with private automobile and tour bus traffic on a regular basis. This not only detracted from the visitor experience, but created safety hazards due to the large number of pedestrian/vehicle conflicts.

The existing park ATS system has virtually eliminated these problems. However, the issue of tour bus access directly in the Lower Town area still remains to some degree.

At the same time, the original shuttle bus fleet is now beginning to approach the end of its useful life. Plans should thus be initiated for the scheduled replacement of these vehicles over the next three to five years in order for the system to be able to maintain a high-quality service.

The planned acquisition of an additional 800 acres of land will also likely require an expansion of both the existing visitor parking area and the operation of an expanded shuttle bus program.

■ 5.0 Bibliography

National Park Service, Official Map and Guide: “Harpers Ferry National Historical Park,” 1998.

National Park Service, Harpers Ferry National Historical Park Web site (<http://www.nps.gov/hafe/>), Visited October 6, 1999.

■ 6.0 Persons Interviewed

Donald W. Campbell, Superintendent, Harpers Ferry National Historical Park